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DECORATION & FURNITURE

THE OPEN FIREPLACE IN ALL AGES.*

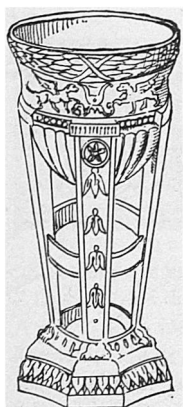


FIG. 1.
EARLY GREEK
FIREPLACE.

ALL of us, we presume—at least all of us who attach any meaning to the good old word fireside—love the open fire, with its ruddy glow and cheery aspect, and would joyfully reject forever the hideous sheet-iron stove, if only sure of an agreeable, well-radiated heat without it. Not that the depressing, comfortless stove, even as a radiator of heat, is more desirable—for it never will answer its purpose until people stand on their heads instead of on their feet—but it does give a volume of heat, although that heat strikes about mid-air, keeping the head warm and the feet cold. The unimproved open fireplace hardly does as much as that. But if we could only have the ideal open fireplace, with all its old-fashioned picturesqueness, and without waste of heat, and without dangerous draught, and without its imperfect ventilation! Mr. J. Pickering Putnam, in a timely little volume just published, tells us that we may have it, and he explains how. The greater part of the book is devoted to the consideration of these very points.

So great, he tells us, is the danger from cold draughts occasioned by open fireplaces as they are now constructed, that one is less liable to take cold standing in the open air, with the thermometer at freezing-point, than sitting on such a day in a room heated by a bright open fire. So unequal is the distribution of heat in such a room that water may be frozen in one corner near the window draughts, and boiled in another near the fire, and it has been even found possible to roast a goose in front of such a fire, while the air flowing by it into the chimney was freezing cold. When, in addition to these startling statements, we are assured that the best authorities put the waste heat of our fireplaces at from eighty to ninety-five per cent, according to the shape of the fireplace, the nature of the fuel, the amount of the draught, and the size and nature of the flue, we realize the importance of Mr. Putnam's scientific experiments in the direction of reform, and feel grateful to him for giving, in the exhaustive and lucid manner that he does, the results of his investigations, from which we learn, among other things, that the Jackson ventilating fireplace wastes much less than the ordinary fireplace, thirty-two per cent of the heat produced being utilized.

With the practical part of the book, however, we

have not to deal. This is a matter the treatment of which comes properly within the scope of a magazine for architects, and indeed the work under review is a reprint from that admirable publication, *The American Architect and Building News*. It is in the décora-

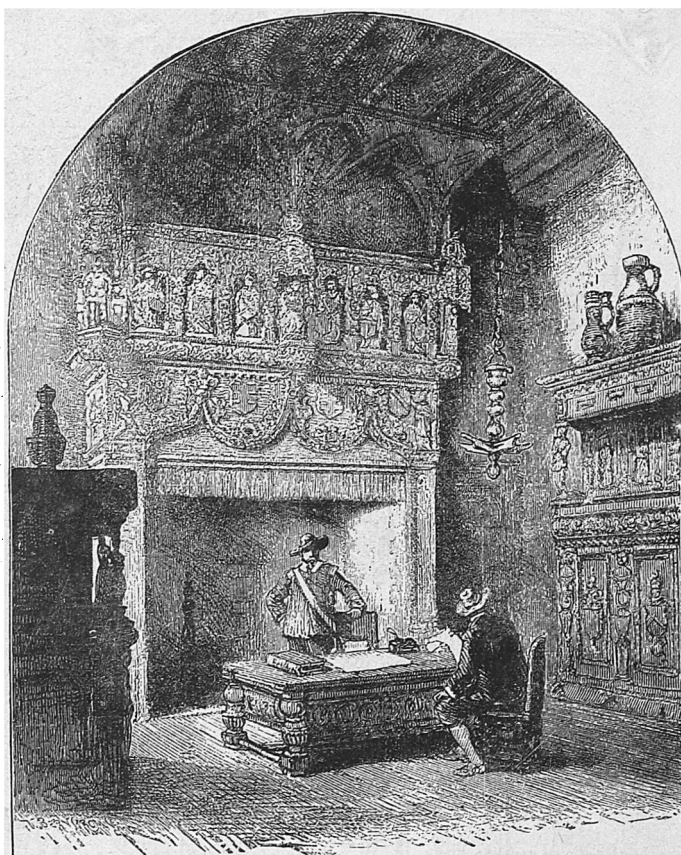


FIG. 3.—ELIZABETHAN FIREPLACE IN THE COUNCIL CHAMBER OF COURTRAY.

tive aspect of the subject that we are especially interested, and we confess our disappointment that Mr. Putnam has not given us at least one chapter of practical hints in this direction. Many of the illustrations in the volume, however, are highly suggestive, and there

being built in the middle of the building or hut, and the smoke escaping from the roof, the conditions for the ideal fireplace were nearer fulfilled than they are at the present day. But barbarous as this arrangement may seem, it nevertheless has certain advantages. The

heat of the fire is utilized to a far greater extent than is the case with that burning under our modern chimney. All the radiated heat is obtained, and a large part of the heat of contact of air. As a ventilator it is superior to our modern apparatus, since no impure air can remain for a moment in the

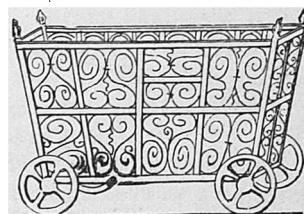


FIG. 2.
SPANISH PORTABLE FIREPLACE.

room, and the cold draughts entering are not drawn to a single spot limited by the height and size of the mantel, as with us, and being, therefore, less concentrated, are less dangerous.

This first step, which, being founded on common-sense, was necessarily in the right direction, did not lead, as one might naturally suppose it would have done, to the adoption of the upright flue for carrying off the injurious products of combustion. This contrivance was one of the latest to contribute to the health and comfort of man, although the principle of the modern chimney was probably understood long before the practice of constructing it became general. According to Peclet, chimneys appear to have been unknown to writers of the early part of the fourteenth century. But once introduced, their merits appear to have been rapidly appreciated, since we find it stated that in the reign of Queen Elizabeth apologies were

made to visitors if they could not be accommodated with rooms provided with chimneys, and ladies were frequently sent out to other houses where they could have the enjoyment of this luxury. Thus the general use of the chimney is quite recent, and it was not until the time of Savot, Franklin, and Gauger, that we have record of any serious attempts to combine the cheerfulness of an open fireplace with the economy of an inclosed stove.

Gradually, for the purpose of avoiding lateral currents of air, jambs were built on each side of the fire, to direct the air upon the fuel, and the chimney flue was brought down to within a few feet of the fire. By this step another large portion of the radiant heat was lost, and the whole of the heat of contact of air, without an effort to obtain a corresponding compensation.

In milder climates we find the portable brazier without any provision whatever for the outlet of the smoke.

This system of heating was generally employed by the Greeks and Romans. It is still used in Spain, Italy, Algeria, and other warm countries. The braziers of the Greeks and Romans formed elegant pieces of furniture, often beautifully sculptured, as in the initial

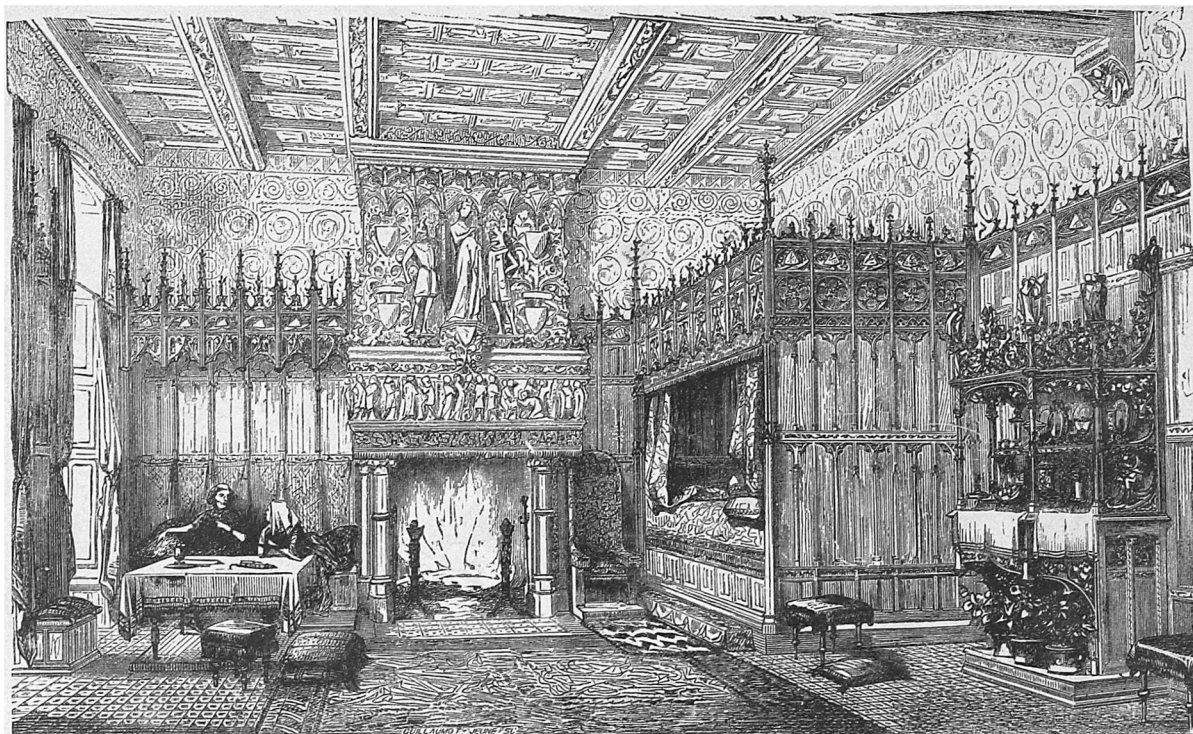


FIG. 4.—GOTHIC BED-CHAMBER IN A FIFTEENTH-CENTURY FRENCH CHATEAU.

is an admirable chapter on the history of the open fireplace from which we quote freely:

It is not flattering to our pride in our "modern improvements" to be reminded that when, in the earliest ages, the chimney consisted of the entire house, the fire

* "The Open Fireplace in All Ages." By J. Pickering Putnam, Architect. Illustrated by 269 cuts, including 36 full plates. Boston: James R. Osgood & Co.

figure. The Spanish portable brazier (Fig. 2), in which charcoal is burned, is rolled from room to room, warming each in succession. By this system the entire heat of the fuel is realized, but, on the other hand, the products of combustion, always disagreeable to the occupants, and highly injurious to the paintings and furniture, are extremely dangerous for the health.

In colder climates, where greater heating power is necessary, the brazier is of course insufficient. In the frigid zones, however, where wood and coal cannot be obtained, the brazier reappears in the form of the smoky lamp of the Laplander and Esquimau. Here economy approaches its maximum, the heating, lighting, and ventilation being effected by one and the same inexpensive agent, namely, putrid oil, burned under a hole in the roof of the hut. "The Greenlander," says Tomlinson, "builds a larger hut and contrives it better, but it is often occupied by half a dozen families, each having a lamp for warmth and cooking, and the effect of this arrangement, according to the remark of a traveller, 'is to create such a smell that it strikes one not accustomed to it to the very heart.'" The effect of this great economy, however, is shown in the bleared eyes and the stunted growth of the natives.

Finally, the last degree of economy in warming, if we can call that economy which saves fuel at the expense of health, is reached by the lace-makers of Normandy, who work warmed by the natural fires burning in the bodies of their domestic animals. They rent the close sheds of the farmers who have cows in winter quarters. "The cows are tethered in a row on one side of the shed, and the lace-makers sit cross-legged on the ground on the other side, with their feet buried in straw. The cattle being out in the fields by day, the poor women work all night for the sake of the steaming warmth arising from the animals."

After thus showing us the backwardness of the civilized Greek and Roman in the use of their tripods, the

ourselves allow the air of our rooms to be impoverished in the very same manner, and often to an even greater extent, by the noxious vapors pouring from our unventilated gas-burners and causing pernicious contamination.

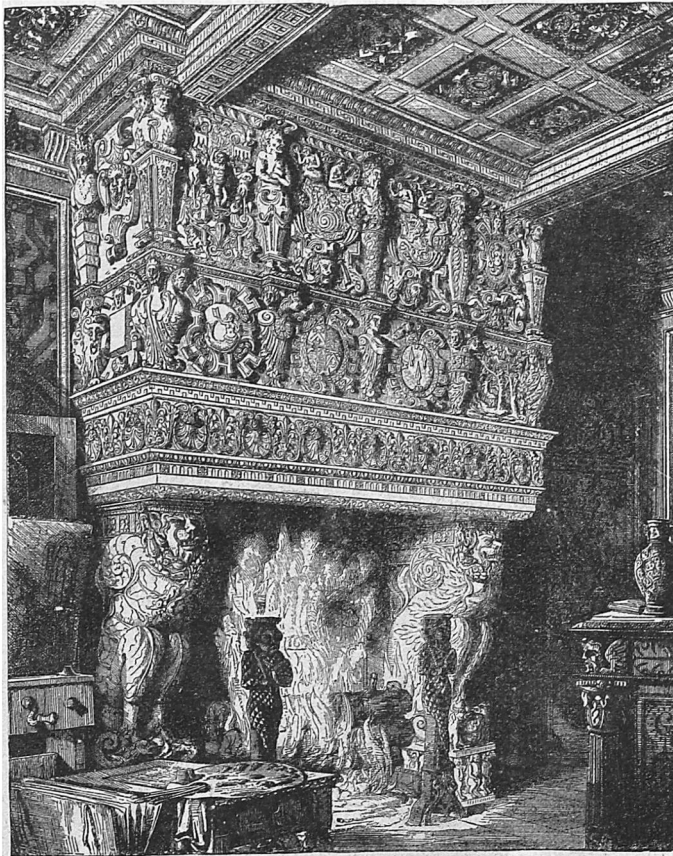


FIG. 5.—FRENCH STUDIO FIREPLACE.

The idea of building the fireplace against the side wall probably originated in England in the eleventh century, at the time of the Norman conquest. Previously the chimney consisted merely of a hole in the

roof, with a small wooden tower above to carry up the smoke. At the time of the conquest fortresses were constructed and the roofs used for defence, so that the central opening for smoke was rendered impossible. The fireplace was removed to an outside wall and an opening made in this wall above the fire for the passage of the smoke. The oblique opening in the wall gave place soon after the conquest to the ordinary chimney-flue.

This form of flue naturally led to the ordinary chimney as it is now constructed. The fireplaces and flues were at first very large. In France a royal edict, as late as 1712 and 1723, fixed the size of the flue at three feet wide and deep enough to admit the chimney-sweep. In this country we have seen old-fashioned fireplaces eight feet long and three feet deep. These caused such a draught that screens were necessary in the room to protect the inmates from powerful currents of cold air, but, although the waste of heat was enormous, on account of the cooling effect of these strong draughts of outside air, it was nev-

sometimes six or eight feet above the hearth, they radiated the heat generously into the room, and although they did not pretend, any more than do our modern fireplaces, to heat the air of the apartment, they at least sufficed to warm amply the persons grouped around them or seated on the hospitable benches built upon the hearth itself.

As for smoke, it is undeniable that where but a small fire is required, as is usual in our smaller modern rooms, and the fireplace and flues are large, the hot-air current is greatly cooled by the cold air entering above the fire, and the rapidity of the draught is proportionally diminished. It is of course thereby rendered less capable of resisting any impediments to its passage which may be offered in the form of defective construction of the flue or imperfect ventilation of the apartment. But where the flue was perfect and where sufficient air was brought into the room to supply the place of that drawn up the chimney, and where the hood projected well over the fire, a smoky chimney was found to be a rare occurrence, even with the largest fireplaces and with the smallest fires.

It is the custom when one of these ample fireplaces, built after the old-fashioned style, is found to smoke, to lay the blame to the size of the opening and flue, although nine times out of ten the real fault will be found to be in an insufficient ventilation of the apartment, or in a careless or irregular construction of the flue. Hebrard, in his "Caminologie," wrote in 1756 as follows: "It is surprising that we should allow these old chimneys to be changed in order to follow the fashion of the day, without taking the pains to examine whether the utility is as great as the novelty. It appears that it is not. It has been observed, on the contrary, that of the few old chimneys which have escaped remodeling, there is scarcely one which smokes. Old men testify to the same effect in regard to those which existed in their time, while we have no hesitation in saying of the majority of our new chimneys that they do smoke."

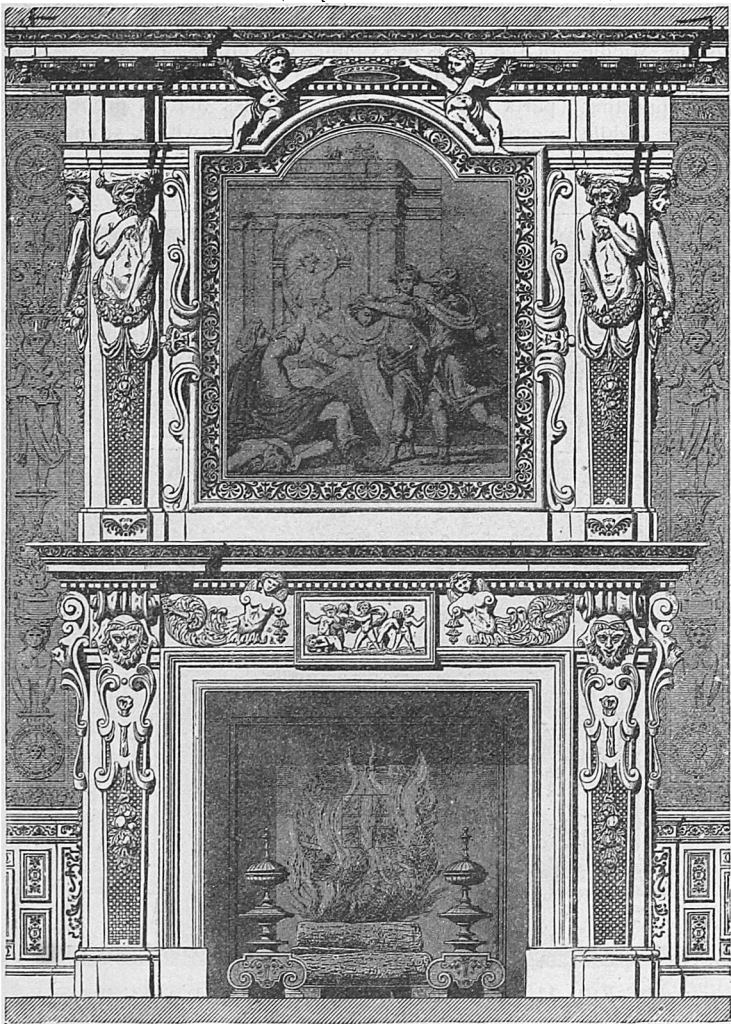


FIG. 6.—WOODEN FIREPLACE IN THE BED-CHAMBER OF LOUIS XIII.

primitive Spaniard with his rolling brazier, the poor Esquimau with his feeble and smoky lamp, and the wretched lace-makers of Normandy in their close and sickly atmosphere, Mr. Putnam reminds us that we

ertheless much less in proportion to the fuel burned than is the case with the smaller modern fireplace. Provided usually with a large hood projecting boldly into the room, and placed at a considerable height,

lorme, and others. The hood was dropped partly because it was thought to interfere with the decoration of the apartment and partly on account of the desire for novelty. Unfortunately, this modification in-

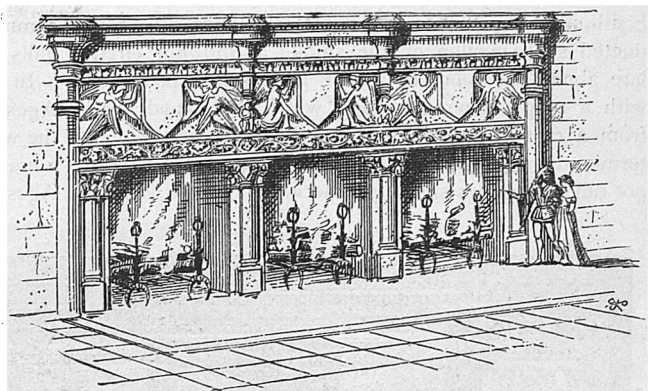


FIG. 7.—TRIPLE FIREPLACE IN THE COUNCIL HALL OF THE COURTS OF POITIERS.

The cause of this change was the suppression of the hood which had been built and recommended as of the utmost importance by Alberti, Philibert De-

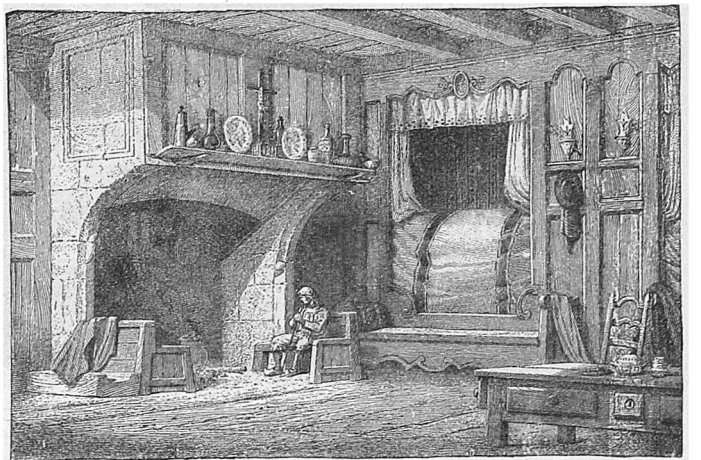


FIG. 8.—FIREPLACE IN A PEASANT'S COTTAGE IN BRITTANY.

volved a second which had a still more injurious effect upon the heating power of the fire. The smoke, being no longer properly conducted to the flue, would under adverse circumstances enter the room, and the device of lowering the mantel was adopted to obviate the difficulty. This was done at first by adding a simple band of leather or of some other material below the mantel-shelf, then by movable registers or blowers of metal, and finally by lowering the mantel and shelf itself, which modification in the course of the eighteenth century brought the fireplace down to the form commonly met with in our day—a form which, objects Labarthe, "utilizes neither the radiant nor the transmitted heat." Still another reason was given for the lowering of the mantel. It was urged by Serlio and Savot that this new disposition had only been introduced to protect the eyes from the heat of the fire. It was, however, argued with all apparent reason, by Hebrard, that the object sought could not in the least degree be obtained by this means, since it would be necessary for the purpose to give up chairs and warm one's self standing up. Mr. Putnam, in a chapter full of valuable suggestions to architects and builders, for the improvement of the open fireplace, shows in what way these large, old-fashioned chimneys may be constructed, either with or without the hood, so as to render the draught, in all cases, both ample and unfailing.

The hearth in the middle of the hall still existed as late as the fourteenth century as a general custom. The great logs were simply piled on andirons, and the smoke escaped through the *louvre* on the roof. Major J. S. Campion, an English traveller, gives the following description of a Spanish kitchen fireplace, showing that this rude form even now exists: "Almost in the middle of the room was a rough hearth, about four feet square and a foot high, and composed of tiles, flat stones, pieces of iron—anything that would not consume. In its centre burned a fire of three sticks laid star fashion, with a blazing brushwood heaped on them. A large wooden hood supported by massive rafters caught and conducted such portion of the smoke as did not circulate about the room to a hole in the roof furnished with a rough *louvre*, through which it escaped; and from a cross iron of the hood hung a stout chain, terminating in a hook, by which was suspended a large pot full of potatoes slowly simmering." Wood was the

"In the hall, that ancient seat of hospitality," says Tomlinson, "they were also strong and massive, to support the weight of the huge logs; but the standards were kept bright, or ornamented with brass rings, knobs, rosettes, heads and feet of animals, and various grotesque forms. In the kitchen and in the rooms of

long were sometimes burned. Seats were placed on and about the hearth, and the screens and jambs of the fireplace formed together a complete chamber as it were, apart from the large halls in which they were built, and here the family united to pass the long winter evenings and listen to the famous legends of olden times.

After the thirteenth century the kitchen, forming part of the main house, and no longer a separate establishment in which whole sheep and oxen were cooked at one time, was furnished with one or more such massive fireplaces. One belonging to the Abbey Blanche de Mortain was built of granite, and still bears the arms of the abbey and the triple pot-hanger with the iron plate behind the fuel. It has no piers at all, the hood resting on heavy corbels of granite, and the fireplace is built, as usual, in the thickness of the wall.

Up to the fourteenth century the fireplaces of private houses and châteaux were generally of great simplicity, and it was only later that we see any attempt at decoration. In the volume before us are illustrations of two fireplaces of the fifteenth century with jambs of stone and hoods of wood plastered and curiously decorated. In one of them, we are told, the hood, being plastered and having therefore the appearance of stone-work, seemed to the eye too heavy to be self-sustaining. The artist has therefore taken the pains to carve upon the surface heavy cables, in the hopes of being able thereby to diminish in a measure this disagreeable effect of weakness. The second fireplace is more profusely decorated, and carved chains are added to assist the cable in supporting the heavy hood.

The fireplaces thus far described have not exceeded eight or ten feet in width. When very large halls or saloons in palaces or public buildings were to be heated they sometimes measured thirty or forty feet, and were decorated in a most sumptuous manner. In this case, however, it was necessary to support the mantel by intermediate piers. When these piers extended from the front to the back they formed, under a single mantel, separate fireplaces, each having a distinct flue of its own, as shown in Fig. 7 from the Grand Hall of the Palais des Comtes de Poitiers.

The subdivision of the opening and flue into several parts had other objects besides that of properly supporting the mantel. The ties or withes strengthened the walls, and the draught of each was materially im-

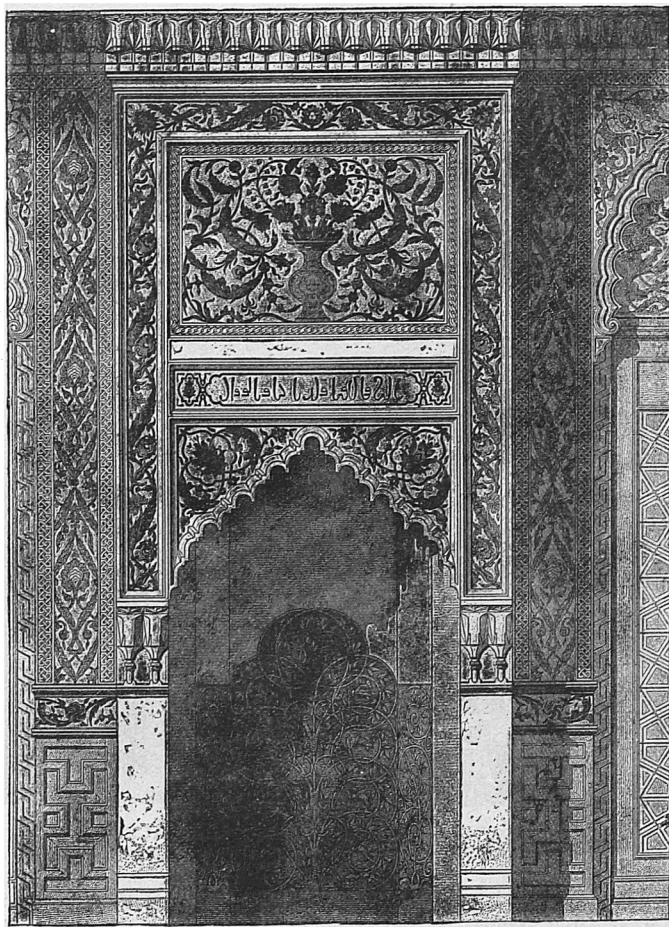


FIG. 9.—FIREPLACE IN THE PERSIAN DRAWING-ROOM OF COUNT BRANICKI'S HOUSE AT PARIS.

common houses the standards were of iron, but in the halls of copper, brass, or even silver."

In its primitive form the open fireplace of the Middle Ages consisted of a simple niche cut in the thickness of the wall, the sides terminating in small piers supporting a massive hood. The oldest fireplaces of the Middle Ages were often circular in plan, the back of the fire-

place forming one segment of the circle, and the mantel and hood the other. Those supposed to be of the twelfth century were not so large as those of a century later, and the mantel was apt to be formed of a single piece or of two pieces of material. In the fireplace of a private house in the old town of Cluny, France, the hood is supported by a single curved timber; the entire thickness of the wall is used, the back of the fireplace being on a line with the outside of the wall, so that the masonry of the chimney shows in projection on the exterior. The hood is elliptical and resolves itself, as it ascends, into a circular flue. On the right and left are little shelves for lamps, corresponding to our modern gas-burners on the chimney-breast. The low windows near the fireplace enabled the occupants to see what was going

on in the street while they sat by the fire. This latter comfortable contrivance is adopted in the modern open fireplace arrangement shown in Fig. 12.

The old fireplace in Roslin Castle was of colossal dimensions and extreme simplicity of design. In those great fireplaces huge trunks of trees six or eight feet

proved by having its own small, independent flue. When the fire was first lighted, or when less than the ordinary amount of heat was required, it was possible to confine the fire to a single section. By this arrangement each part, besides having sufficient draught of itself, served also to heat and improve that of the rest.

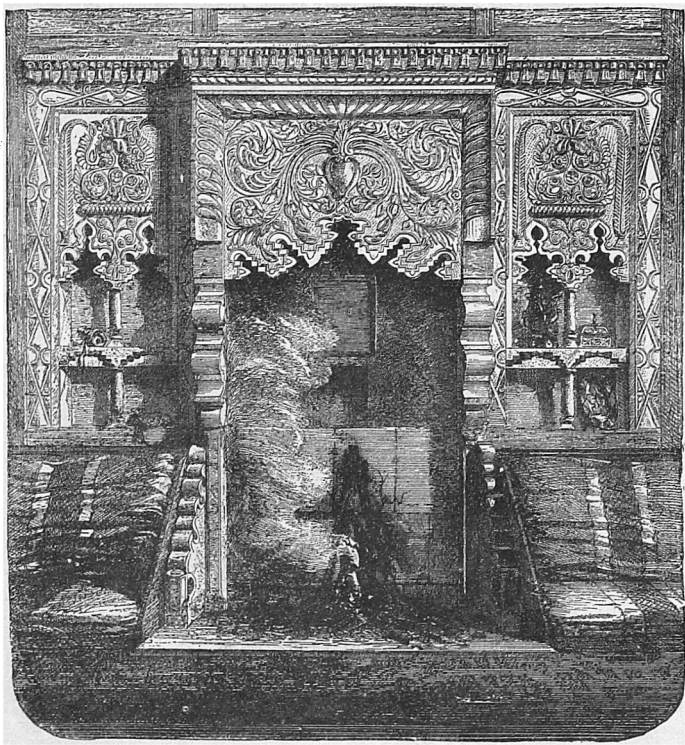


FIG. 10.—TURKISH FIREPLACE OF THE SEVENTEENTH CENTURY IN THE PACHA'S PALACE AT KÉRÉSOUN.

ordinary fuel till the seventeenth century, and this was burned on the capacious hearth, resting on the two standards or andirons, a name which may have come from the Anglo-Saxon "brand-isen" or brand-iron, or from the words hand or end iron. For the large kitchen fire, the standards were strong and massive but quite plain.

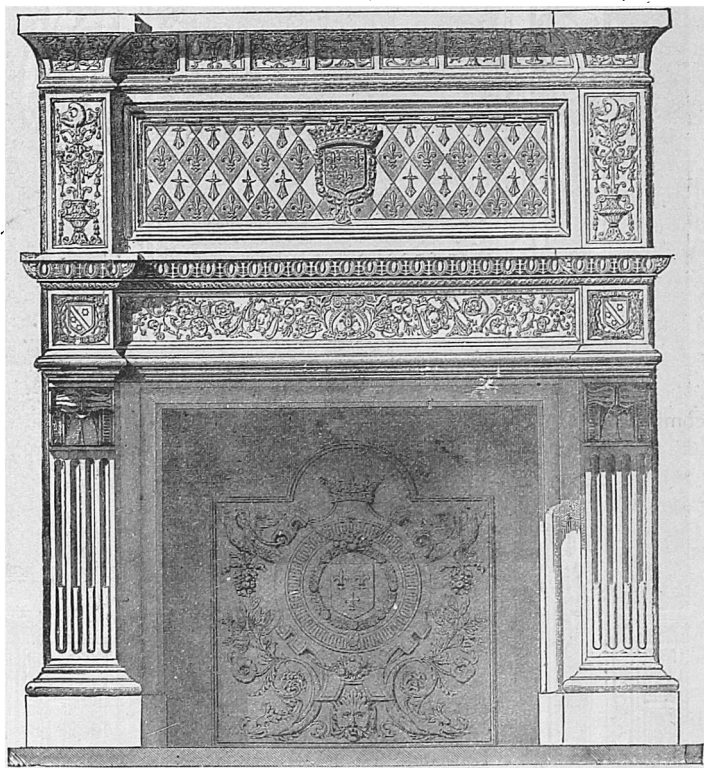


FIG. 11.—FIREPLACE IN THE HÔTEL D'ALLUYER, BLOIS, FRANCE.

The fireplace represented by Fig. 7 was built in the fifteenth century, and occupies one end of the hall in which it stands. "It is," says Viollet-le-Duc, "no less than 10 meters long and 2.30 meters (7 feet) high under the mantel. . . . In the interior of the public buildings as well as in the exterior, the Middle Age understood how to produce imposing effects of architecture, which make the treatment even of our most important modern buildings seem weak and insignificant by comparison."

"When the Counts of Poitiers, in their grand robes of state, sat enthroned in this hall, surrounded by their officers; when behind the feudal court blazed the

ages, to some of which an additional interest is lent by their being hardly more than accessories to pictures in themselves of real historical value. The fact that the best of these pictures are reproductions from well-known originals which have appeared in such works as "L'Art pour Tous," and Viollet-le-Duc's "Dictionnaire du Mobilier Français," does not detract from their value. The public indeed is indebted to the publishers for affording it the opportunity, at a trifling expense, of becoming acquainted with examples of household art, otherwise difficult of access or to be found only in books of great cost.

The fireplace in the Council Chamber of Courtray (Fig. 3) is a noble example of Elizabethan style. In such a recess as this, with its correspondingly large flue, a whole family in troublous times might have concealed itself with impunity. Notice the fine, strongly constructed old-fashioned table and the stately simplicity of the apartment generally.

Even more interesting is the view (Fig. 4) of a bed-chamber in a chateau of the fifteenth century. What a scene for a ghost story, or for the commission of some grewsome tragedy! The room is picturesque in its appointments, but these are in the worst style of the Gothic decadence. The chimney breast and furniture especially are overloaded with sculpture. The two

French fireplaces shown in Figs. 5 and 8 are also romantic and curious.

The beautiful fireplace shown in Fig. 11 is in the "Salle des Gardes," in the "Hôtel d'Alluyer," at Blois, France—the house of Minister Robertet, of Louis XII. and François I. It is built of stone, and is about twelve feet high and eleven wide. The arms of Robertet are sculptured over the piers. The main panel is surrounded by a moulding which contains the knotted cordelière of Anne de Bretagne. The field of the panel is decorated with the losanges alternatively of France and Bretagne. The shield of France is surmounted by the crown, and surrounded by the collar of

represents children playing with the head of Medusa. Other scenes in the life of Perseus and Andromeda are painted on the ceiling and over the doors. The walls are covered with magnificent tapestry, of which a part is shown at the right and left of the mantel.

From the sculptures and chimeras of the Renaissance we have the graceful tracery and arabesques of a fireplace in the Persian drawing-room of the house of M. le Comte Branicki, Paris, and from a Pasha's palace at Kérésoun a Turkish fireplace of striking design.

An agreeable introduction of some of the pleasantest features of the mediæval open fireplace into modern

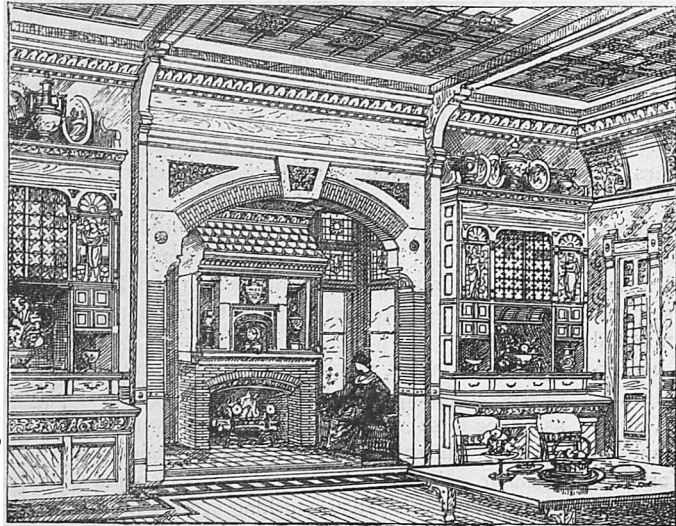


FIG. 12.—MODERN DESIGN FOR A FIREPLACE IN A STONE COUNTRY HOUSE.

three fires on their three hearths; and when, to complete the picture, the assistants were seated on benches before the gorgeous windows above the mantel, one can imagine the respect that a scene of such nobility and grandeur ought to have inspired in the minds of the vassals assembled around the court of their lord. Certainly one should feel himself triply in the right to be able to defend his cause before a tribunal so nobly seated and surrounded."

Interesting and beautiful as were these immense fireplaces of the Middle Ages, they were, as then constructed, open to the objection of being too expensive for ordinary use, both in first cost and in their large consumption of fuel. For the majority of our modern rooms they would be altogether out of proportion in size, and about as much in place as would be a smelting furnace for a domestic oven, or the grand portal of a cathedral for the entrance of an ordinary dwelling. Their capacious throats engulfed huge quantities of air from the room—much more than was necessary to support the combustion of the fuel, and as this air could not conveniently be allowed them, where no economical means of warming it as it entered the room was known, they smoked (as any sensible chimney would do under the circumstances), and the only way that could be imagined to diminish the smoking was to diminish the size of the fireplace-opening. This diminution took place as has already been described, and the fireplace assumed its present economical proportions.

The chimney continued to smoke, however, and it was seen that the cure had not as yet been discovered. Mr. Putnam devotes a large proportion of his work to describing and illustrating the best method of overcoming this evil of smoking fireplace chimneys, but we have not space to enter upon this branch of the subject.

In addition to the illustrations already alluded to, we have selected a few examples of fireplaces of various

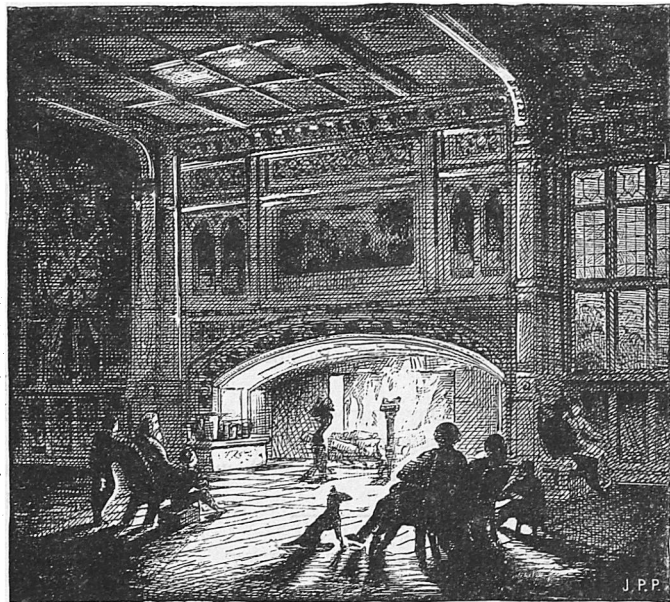


FIG. 13.—LARGE VENTILATING FIREPLACE IN MEDIÆVAL STYLE.

dwellings is shown in the illustrations at the top of this page. The cut on the left is an unexecuted design for a fireplace of stone and brick combined, shown in perspective in *The American Architect*, for June 10th, 1876. The ceiling and sideboards are from Talbert. The other illustration—most effectively reprinted in black on yellow, on the cover of the book—shows a fire burning in the large fireplace. There are ventilating registers above, extending across the entire front of the chimney-breast. "Thus, by using a distributor with a large old-fashioned fireplace constructed in this manner, both dangerous draughts and liability to smoke are avoided, while all the advantages enjoyed

by our forefathers are retained."

The last illustration of our notice shows a fireplace designed by Mr. Putnam for a house in Commonwealth Avenue, Boston. The extension of the fireplace on either side as recesses for fire-irons and coal-scuttle is a happy idea, suggested perhaps by the multiplied fireplace of the Middle Ages.

DESIGN AND DECORATION OF HANDLES.

THAT all decorative art has its root, however far back, in use, is a fact of which the designer and decorator should never lose sight. Ornamentation of an object growing

out of the object itself and forming part of it, is therefore as a rule to be particularly commended. Examples of this principle are shown in the illustrations on the fourth page of the regular supplement of the present number. They are taken from Mr. Lewis F. Day's "Instances of Accessory Art." The instance of the ornamental handle is a curious and interesting example of the influence of use upon design. "The seemingly useless silk cord that the dandy wears on his cane," Mr. Day reminds us, "is own brother to the thong with which the ruffian makes sure of his hold of the loaded bludgeon, and the conventional silken acorn, or

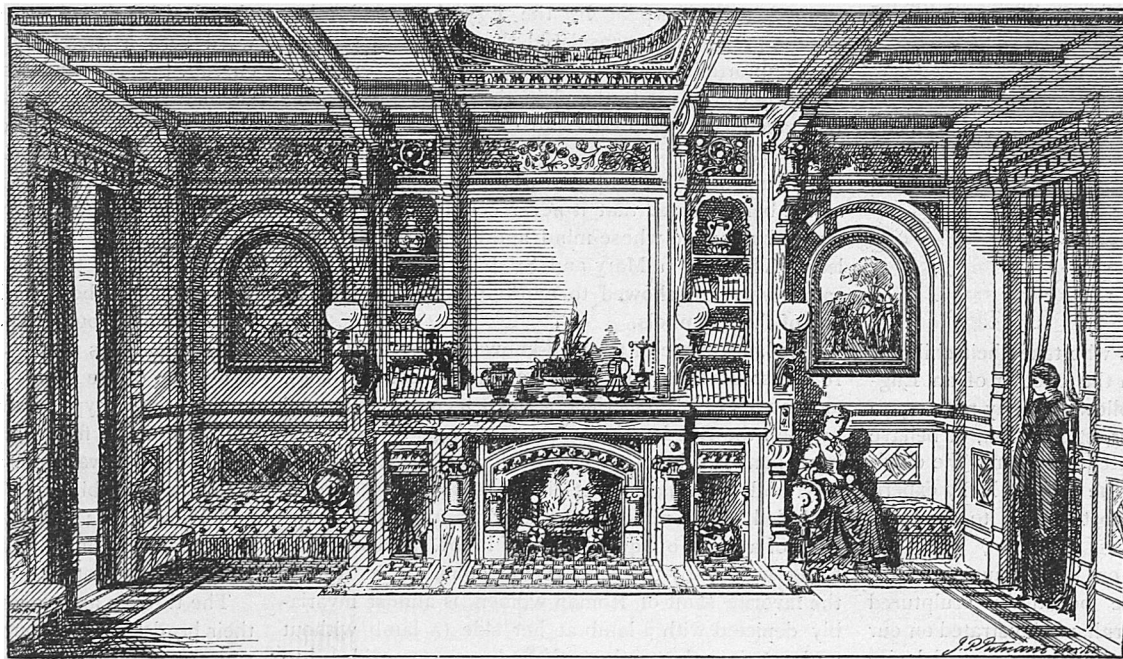


FIG. 14.—PARLOR FIREPLACE FOR A HOUSE ON COMMONWEALTH AVENUE, BOSTON.

the Order of St. Michel. The birds in the curved cornice are sculptured with the arms of Michelle Saillard, wife of Robertet.

In contrast with this charmingly chaste fireplace we have a highly ornate example of the meretricious art period early in the seventeenth century. It is a wooden fireplace in the bed-chamber of Louis XIII. in the Chateau of Cheverny (near Blois). The picture over the mantel represents a scene in the history of Perseus. Conducted by Minerva, he petrifies his enemies by showing them the head of Medusa. The small tablet in the facing is made of mosaic on a gold ground. It